

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

***Listing of Claims:***

1. (Currently Amended) A vaccine for equine influenza virus, comprising:  
an effective immunizing amount of an isolated DNA, the isolated DNA  
~~comprising~~ consisting essentially of an HA1 encoding sequence of a strain  
of equine-2 influenza virus[[,]]; and  
a pharmacologically acceptable carrier or diluent.
2. (Original) The vaccine according to claim 1, wherein the HA1 encoding  
sequence is selected from the group consisting of strains A/Eq/Kentucky/98, A/Eq/Miami/63,  
A/Eq/Kentucky/81, A/Eq/Fontainebleau/79, A/Eq/Kentucky/94, A/Eq/Newmarket/2/93,  
A/Eq/New York/99, and A/Eq/Oklahoma/2000.
3. (Currently Amended) The vaccine according to claim 1, wherein the HA1  
encoding sequence is ~~for~~ from strain A/Eq/Kentucky/98.
4. (Original) The vaccine according to claim 1, wherein the HA1 encoding  
sequence comprises the nucleotide sequence of SEQ ID NO: 1.

5. (Original) The vaccine according to claim 1, further comprising one or more of the group consisting of additional antigenic components, encoding sequences for additional antigenic components, and other vaccines.

6. (Currently Amended) The vaccine according to claim 1, further comprising a vector ~~for~~ containing the HA1 encoding sequence.

7. (Original) The vaccine according to claim 6, wherein the vector is a eukaryotic expression vector.

8. (Original) The vaccine according to claim 7, wherein the vector is selected from the group consisting of pcDNA3.1/V5-His-TOPO and pVAX1.

9. (Original) The vaccine according to claim 1, further comprising an adjuvant.

10. (Original) The vaccine according to claim 9, wherein the adjuvant is selected from the group consisting of complete Freund's adjuvant, incomplete Freund's adjuvant, saponin, mineral gels, surface active substances, pluronic polyols, polyanions, peptides, oil or hydrocarbon emulsions, keyhole limpet hemocyanins, and dinitrophenol.

11. (Canceled)

12. (Original) The vaccine according to claim 1, further comprising a liposome into which the HA1 encoding sequence is encapsulated.

13. (Original) A method of inducing an immune response against equine influenza virus, comprising administering to an equid an effective immunizing amount of the vaccine of claim 1.

14. (Currently Amended) The method according to claim 13, further comprising the ~~steps of inserting the HA1 encoding sequence into a vector and~~ step of delivering the vaccine intranasally into the respiratory tract.

15. (Original) The method according to claim 14, wherein the vector is a eukaryotic vector.

16. (Original) The method according to claim 15, wherein the vector is selected from the group consisting of pcDNA3.1/V5-His-TOPO and pVAX1.

17. (Currently Amended) The method according to claim ~~15~~ 13, wherein the ~~vector is~~ a liposome vaccine further comprises a liposome into which the HA1 encoding sequence is encapsulated.

18. (Original) The method according to claim 13, wherein the vaccine is administered at a dosage of at least 0.01 $\mu$ g DNA per gram of body weight.

19. (Original) The method according to claim 13, wherein the vaccine is administered at a dosage falling within the range of 0.001 $\mu$ g DNA per kilogram of body weight to 0.01 $\mu$ g DNA per gram of body weight.